1962

Diagnostic dilemma in certain cases of mental retardation

Jerk Lynn Williams
University of Nebraska Medical Center

DIAGNOSTIC DILEMMA IN CERTAIN CASES OF MENTAL RETARDATION

Jere Lynn Williams

Submitted in Partial Fulfillment for the Degree of Doctor of Medicine

College of Medicine, University of Nebraska

April 1, 1962

Omaha, Nebraska

TABLE OF CONTENTS

I. HISTORICAL BACKGROUND:

For the past few years, there has been a tremendous upsurge of interest in the problem of Mental Retardation, not only by the medical profession, but by the laity as well. The influences responsible for this trend are numerous and varied, and not the least of these is the general acceleration, since World War II, of all subjects psychiatric. An appropriate example may be cited: In the ten-year period from 1946 to 1956, the number of publications dealing with a single subject, viz. childhood Schizophrenia, increased approximately ten-fold over that for the previous ten years(13). And what forces have wrought these wondrous changes? There have been innumerable factors operating, and, generally speaking, one can only speculate as to the mechanisms involved and to their relative importance.

Certainly there is a profoundly different atmosphere prevailing over a present day grant of more than one million dollars for the study of mental retardation than that of the late 18th Century in which Pinel removed the chains from the insane in what amounted to virtual defiance of current thought and public opinion. A few years later, Pinel himself, the leading psychiatrist of his time, diagnosed the "Wild Boy of Aveyron" as an idiot and incurable. Itard, however, who

was working with the boy, was convinced that he could be helped. Because he was a physician for the deaf, it was only natural that he was familiar with, and made free use of, sensory methods of training in trying to educate the boy. The patient never reached, nor even approached, the levels of understanding and intelligence for which Itard had so fervently hoped and so diligently worked, but he did become quite human in social behavior. Although Itard, himself, was disappointed in the degree of improvement in the boy, his work inspired Seguin to continue the search for a cure for mental retardation. Moreover, it was from his methods that our present-day sensory methods for training the deaf eventually evolved(35).

Seguin introduced the neurological concept into the retardation picture and further elaborated sensory training. At about this same time, Guggenbuehl established an institution for cretins in Switzerland and Dorothea Dix was leading a successful crusade in the United States for better care of the insane. The stage was then set, in the late 1840's, for Howe and others in Massachusetts to establish an institution for feeble-minded children and the foundation of a great new movement in education. Howe invited Seguin to come to the United States, and together they inaugurated

a new movement in educational philosophy and methods and laid the groundwork for a system of training of the feeble-minded in habits for acceptable social living and for gaining knowledge of the world.(35)

Unfortunately, with the passage of time, the emphasis gradually shifted from training and education to housing and custodial care. This development was undoubtedly due predominantly to the discouragement which followed the first wave of enthusiasm engendered by nominal successes. The attainment of normalcy which was the projected goal for these children, was obviously impossible, except in very rare cases, and even major or significant gains were beyond the reach of many or most. Custodial care became the rule rather than the exception in the last quarter of the 19th Century, and has remained so to the present day. The current mounting wave of enthusiasm has done little to change the status, nor is it expected to do so; not, at least in a short time nor in any radical manner. Rather, today's view is hopeful but more realistic in its immediate aims; it is multi-faceted in its scope, with heavy emphasis on research; and it is futuristic in its orientation, with maximum prevention as its ultimate goal.

II. CURRENT STATUS OF THE PROBLEM:

In considering any entity or problem, it is essential to define the entity or establish the nature of the problem in order to have even the faintest hope of being able to deal with it intelligently. The "definition" of mental retardation which will be used throughout this duscussion is that of Slobody,[34] who states as follows:

> "Mental Retardation may be described as a condition of incomplete or impaired intellectual development which results in a lessened ability of the child to function in a manner commensurate with his age group. It is not a single disease entity, but is associated with a wide variety of conditions resulting from diverse etiologic factors. The degree of impairment, or retardation, shows great variability, ranging from nearly normal to grossly deficient capacity and functioning."

Within this frame of reference then lies the problem, the nature and magnitude of which are the next factors that are vital to the proper consideration of the subject. There is no way of knowing, with any reasonable

degree of accuracy, just how many persons within any given segment of society fall into the retarded category as encompassed by the foregoing definition. It is relatively easy to account for those who are severely retarded. A large portion of them are institutionalized and the majority of the remainder can be estimated with a fair degree of accuracy by virtue of the social machinery which is in existence to deal with the problem. But it is estimated that three-fourths of all retarded children are only mildly retarded, and this group is estimable only by extrapolation and conjecture. It is into this group that the bane of the teacher's existence, the slow learner, must, by definition, fall. His number is legion but impossible to know accurately and difficult, at best, even to guess. Various authors, using equally various systems of calculation, have estimated the number of retardates in the United States to be from less than two million (27) to more than five million(34). When the families of these persons are included, the estimated number of persons intimately involved in the problem range from approximately ten million to approximately twenty-five million, i.e., from five to fifteen per cent of the population. After arriving at these figures, the authors almost invariably develop a rather stock "conclusion" such as,"...the enormity

"of the problem is apparent," and drop the subject as if this pronouncement did indeed make it apparent or offered a meaningful evaluation of the problem and its impact upon the community at large.

There is really no way to estimate accurately or fairly judge the magnitude of the problem, but in all probability the term "enormity" does not fairly describe the situation. Absolute, or "raw" numbers, however large, do not portray a situation. Nor do percentages of the population affected convey any meaningful evaluation in themselves. If, for the sake of argument, the aforementioned estimates are accepted as being reasonably accurate, then seventy-five per cent of any figure chosen represents a group that is, in general, affected minimally. These people are educable and trainable and are, by and large, integrated into society. They and their families face their situations much as anyone faces the daily or chronic problems which confront him, and most manage to cope with them relatively well. This is not to make light of the problem, but it does take much of the "sting" out of the implications of the unqualified conclusions of some overzealous authors.

Considerable stress is placed upon the fact that only 150,000 persons, most of them severely retarded, are

institutionalized; the remainder reside in the community(34). The figures for both segments are growing, but the population as a whole is growing also. The implications that the problem of mental retardation is a growing one are then seen to be open to serious question. No one actually knows whether it is a growing problem, or a subject of growing interest, or both. In all likelihood the problem is little, if any, bigger in per capita terms than it has been for many years. Perhaps there is some increase due to the fact that more lives are saved and/or prolonged by medical and social changes in this field as in many other areas(3). It may well be that the problem appears to be increasing more than it actually is, due to changing social structures and functions. The large, patriarchal family unit has disappeared. This family group, which was to a large extent self-sufficient and often took care of its own problems such as mental illness and/or mental retardation, has been replaced by the smaller family unit which is the by-product of a trend toward independence. The smaller, more numerous, "independent" families then create an apparent enlargement of the problem by spreading it out in a "horizontal" direction. Undoubtedly the difficulty is actually increased to some degree by this change, because of the loss of division of labor, the increase in numbers of directly responsible and intimately

concerned individuals, and the lessened ability of the family unit to care for its own problems.

Still another factor which adds to both the increase of the problem and the illusion thereof is the steady increase in the premium which society places upon education, and thereby upon intellect, ability, and all of the other criteria and nuances connected therewith. By raising the standards of acceptability, society automatically increases the number of retardates, by implication, if not by definition.

There remains the question of psychiatric retardation. It may be, as has often been stated and implied, that there are more numerous and more severe stresses in today's society than ever before, and that these are heavy contributors to retardation by psychological mechanisms. Perhaps it is also true that society has evolved an individual who, at any given stratum of function, is less able to cope with his surrounding stresses than was his analagous predecessor.

But much of all this may be far more apparent than real, inasmuch as it may be the result of an increased number of persons who are concerned with and/or interested in the problem. And this, in turn, may be a phenomenon of increased technology, better communications, and the rapidly growing popularity, in both lay and professional circles, of psychology

and psychiatry and all of their related areas. All this is not to deny the existence of the problem nor even to deny the increasing magnitude of the problem; nor is it to decry the increased emphasis which it is receiving--rather it is to elucidate some of the pitfalls in thinking which are associated with the problem.

III. DISCUSSION:

Mankind has always had the problem of retardation with him. Early in his existence, it troubled him little, except for the individual affected, for nature solved the problem very effectively--the individual whose abilities were impaired simply did not survive. The individual retardate was, therefore, little trouble to those around him; nor was he often able to procreate and thereby threaten the survival of future members of the species. Only by this kind of mechanism was man able to survive and evolve as he did. With the advent of better group survival, however, the groundwork was laid for different methods of dealing with the problem. Every people in every time, since the dawn of recorded history, has had its problems with its "idiots," its "lunatics," and its "incompetents." Each has had its own way of handling the situation; and the survival rate has figured strongly in all of the methods. With the passage of

time, the rate has steadily increased. The most recent method is isolation and maintenance--the projected future method, prevention, is in many ways much more nearly akin to the early ways, in which a poor survival rate was a prominent element.

Current methodology, while set in the framework of custodial care, purports to be scientific in its approach to the problem. And there is, indeed, much work being carried out in multiple disciplines in efforts to find answers to the many questions involved[5,8,10,14,36]. It is this great diversity of approach which makes the current trend unique and which endows it with the element of hope and zeal which it possesses. In some ways it too is atavistic for it involves a certain amount of "magical thinking" such as the tacit deification of "Research" as the all-encompassing entity which will ultimately solve all of the problems. Obviously, this attitude is not the sole property of the Mental Retardation "Movement," but is, instead, a product of our time, born of technology, and accepted by society as a whole. Thus, we are engaged in a kind of "crash program" to do away with mental retardation. Its popularity is attested by a voluminous and grossly repetitious body of literature which continues to grow in an accelerated fashion.

One of the approaches which often goes under the guise of "Research" but usually is something that would be better termed "Clinical Impression(s)" has, nevertheless, contributed much to the field. It was, and is, from these clinical studies that many of the impressions and ideas come for the analysis and separation of the general category of Mental Retardation into its many and varied component parts[6,31,38,39]. This, in turn, set the stage for the more intensive studies and researches into the genetic factors[3], the inborn errors of metabolism[32], the deprivation factors[16,17], the anxieties, the neuroses, the psychoses, and a host of other factors and sub-factors[37]. To the clinical study, however, there still remains one of the major dilemmas in the field of Mental Retardation.

Webster's dictionary defines "dilemma" thusly:

(1) An argument presenting an antagonist with two or more alternatives (or "horns"), but equally conclusive against him, whichever he chooses.

(2) A situation involving choice between equally unsatisfactory alternatives.

Such is precisely the situation in which the clinician may find himself when dealing with certain mentally retarded patients. The choices with which he is faced are: (a) a purely "organic," or brain-damage, problem; (b) a purely

"non-organic," or psychological (psychiatric) problem; or (c) a combination brain-damage and emotional problem. The physician's dilemma is one not only of diagnosis, but of etiology, and the solution is extremely important, because upon this depends the therapy to be given.

There is absolutely no question that anxiety can be severe enough in a child to keep him from attaining his full intellectual potential. It may even be so severe that the child, like an adult, may be virtually incapacitated. This then may so pre-occupy the child that learning at a normal or even an "acceptable" rate is impossible[23,28]. He is then, for all intents and purposes, a mentally retarded child (by definition) even though he has the innate intellectual capacity to be in the normal range or above. The same is true for other neurotic manifestations and non-organic psychotic states. (This is especially true since anxiety is probably the basic ingredient in all of these states.) By the same token, it is equally obvious that brain damage, from whatever cause, may exist in any given degree from no apparent involvement of intellectual function to virtually complete deterioration thereof. Damage resulting in a degree of incapacitation beyond a certain minimal level of function then constitutes mental retardation, again by definition.

Also, a patient may be limited by a basic situation of brain damage and have an emotional overlay, secondary to his inability to cope with his problems, which is equally or more marked in its incapacitating effects[3,4,9,11,32,35]. These are obvious and incontrovertable facts which have been demonstrated many times over. There are many cases of each type which present no problem regarding diagnosis.

As time goes on, however, and further knowledge is acquired, and observation becomes more acute, an increasing number of cases comes to light wherein the diagnosis, i.e., the etiology, is not at all obvious and may, in fact, be indeterminable. With such a situation, there is almost certain to arise a considerable degree of controversy. When such is the case, it is again essential to establish some sort of working definition. The following is the definition of "brain-injured child" as used by Strauss and Lehtinen[35] and as will be used herein:

> "A brain-injured child is a child who before, during, or after birth has received an injury to or suffered an infection of the brain. As a result of such organic impairment, defects of the neuromotor system may be present or absent; however, such a child may show

"disturbances in perception, thinking, and emotional behavior, either separately or in combination. These disturbances can be demonstrated by specific tests. These disturbances prevent or impede a normal learning process."

It may be seen that "brain-injured," while closely akin to "mentally retarded," is not synonymous with it because it does not include the emotionally incapacitated child.

Bender, drawing heavily upon the work and the thinking of the late Paul Schilder, believes that most brain-damaged children can be shown to have a motility disorder, and vice versa, that children who have disorders of mentation and/or behavior associated with a motility disorder are necessarily brain-damaged[7]. This includes those children who are, or could be, diagnosed as schizophrenic. This theory is further elaborated to state that schizophrenia is, in fact, the result of some form or other of brain damage. While this theory is not well documented, the case material and the clinical observations make the theory worthy of note and of further consideration. And there are, in fact, a number of other workers who have come to the same conclusion[12,13,33,35]. Probably Bender's most important

conclusion is that many of the children who show retardation of one degree or another early in life, but little in the way of definitive neurological evidence of damage, and who may or may not maintain their relative degree of loss, are victims of, or products of, a developmental defect or "maturational lag."

Psychosis in childhood, on the other hand, is confined to schizophreniz, for all practical purposes[1,18,29,30]. While other entities are considered by some to exist, they are comparatively rare. Schizophrenia itself is considered by virtually all authorities to be a group of diseases or disorders whose end results are the same, whatever the etiology or the course may have been. This is exemplified by Bellak's "multiple factor" theory[2]. Some authors list as many as seven kinds of childhood schizophrenia[19]; but generally speaking, these may be reduced to three kinds: Kanner's Autistic child (also considered to be a separate entity)[20,21,22]; Mahler's symbiotic infantile psychosis[24,25,26]; and a mixture of the two types, probably the most commonly seen.

These "entities" show strong associations with particular kinds of parental attitudes, and on this basis the belief that they are emotional disorders is maintained stanchly by many. Because the parental attitudes and other

factors do not correspond in all cases, and because, as shown by Strauss and Lehtinen[35], many patients can be shown to have brain damage, who do not show gross neurological involvement, the opposite point of view, the theory of brain-damage as the sole "etiology," is held by others.[7] The patients who fall into the brain-damaged group do show slight neurological signs, but no conspicuous motor impairment. Some authors feel that the hyperkinetic child, the autistic child, the symbiotic child, the child with maturational lag, and others fall into this category, which is known as "Diffuse Brain Damage." These groups are said to fit this definition because it includes all types of damage and therefore encompasses sensory impairment, motility dysfunction, autonomic impairment, and generalized developmental dysfunction, features which these groups of patients possess, or appear to possess. The proponents of the non-organic or "functional" school of thought maintain that in at least some of these groups psychotherapy is the only type of treatment which has had any degree of success whatsoever, and this has been relatively uncommon. This, they feel, militates against an "organic" etiology. The latest, and by far the best documented, study of the problem is that of Daryn[12]. In a large series of children with "diffuse brain-damage" he was able to show,

by using great care in a large variety of tests and techniques, that the vast majority of these children had demonstrable findings compatible with organic brain damage. He has thereby significantly narrowed the range of entities whose general etiologies remain in question. He has not, however, eliminated this perplexing group, and there still remain certain mentally retarded children who appear to be "diffusely brain-damaged," but who do not manifest any neurological signs to confirm the diagnosis. In addition, the enigmatic childhood psychoses, i.e., the schizophrenias and related conditions, persist, in the main, unsolved despite excellent arguments on both sides of the controversy[15]. Where these two riddles merge in one patient--as they very frequently do; and where either or both are present in a diffuse and poorly delineated form--as once again is all too frequently the case--the physician is truly confronted by the horns of a diagnostic dilemma. It is to be hoped that future knowledge will extricate him from this unenviable position.

SUMMARY

The foregoing presentation briefly describes the high points in the historical background of the problem of mental retardation and the emphasis which is being placed upon that problem, and the striving toward its elimination,

in our society today. A working definition of mental retardation, as used herein, is proffered, and the current status of the problem is discussed with the specific aim of elucidating and analyzing some of the pitfalls in thinking regarding its nature and magnitude.

The present-day general approach to the problem is analyzed, and one of its facets, the clinical study, is discussed in some detail. In relation to the clinical study method, the contrast is drawn between the obviously brain-damaged child and the equally obvious psychologically retarded child. In addition, the very closely comparable findings are noted, where these entities approach each other and become less distinctly recognizable. The diagnostic dilemma confronting the physician who would delineate and separate 'diffuse brain-damage" from childhood psychoses (schizophrenias), particularly when they overlap in one patient, is presented. Finally, the genuine hope is expressed that future knowledge will eliminate this dilemma.

V. BIBLIOGRAPHY:

1. Bakwin, H. and Bakwin, R. Schizophrenia in Childhood. Ped. Clinics of No. Am, 5: 699, 1958.

2. Bellak, L. The Schizophrenic Syndrome: A Further Elaboration of the Unified Theory of Schizophrenia, in: Schizophrenia: A Review of the Syndrome, L. Bellak, ed., Logos Press, Inc., N.Y., 1958.

3. Benda, C. Developmental Disorders of Mentation and Cerebral Palsies, Grune & Stratton, New York, 1952.

4. Benda, C. and Farrell, M. Psychopathology of Mental Deficiency in Children, in: Psychopathology of Childhood, Hoch, P. and Zubin, J., ed., Grune & Stratton, New York, 1955.

5. Bender, L. The Development of a Schizophrenic Child Treated with Electric Convulsion at Three Years of Age, in: Emotional Problems of Early Childhood, G. Caplan, ed., Basic Books, Inc., New York, 1955.

6. Bender, L. Twenty Years of Clinical Research on Schizophrenic Children, with Special Reference to Those Under Six Years of Age, in: Emotional Problems of Early Childhood, G. Caplan, ed., Basic Books, Inc., New York, 1955.

7. Bender, L. Psychopathology of Children with Organic Brain Disorders, Charles C. Thomas, Springfield, Illinois, 1956.

8. Bender, L. and Nichtern, S. Chemotherapy in Child Psychiatry, N.Y. St. J. Med., 56: 2791,1956.

9. Bender, L. The Concept of Pseudopsychopathic Schizophrenia in Adolescents, Am. J. Orthopsychiatry, 29: 49, 1959.

10. Bradley, C. Benzedrine and Dexedrine in the Treatment of Children's Behavior Disorders, Pediatrics, 5: 24, 1950.

11. Bradley, C. Organic Factors in the Psychopathology of Childhood, in: Psychopathology of Childhood, Hoch, P. and Zubin, J., ed., Grune & Stratton, New York, 1955.

12. Daryn, E. Problem of Children with "Diffuse Brain Damage," Arch. Gen. Psych., 4: 299, 1961.

13. Ekstein, R., Bryant, K., and Friedman, S. Childhood Schizophrenia and Allied Conditions, in: Schizophrenia: A Review of the Syndrome, L. Bellak, ed. Logos Press, New York, 1958.

14. Freedman, A. Drug Therapy in Behavior Disorders, Ped. Clinics of No. Am., 5: 573, 1958.

15. Friedman, S. Diagnostic Criteria in Childhood Schizophrenia, Menninger Clinic Bull., 18: 41, 1954.

16. Gelinier - Ortigues, M - C and Aubry, J. Maternal, Deprivation, Psychogenic Deafness, and Pseudo-Retardation, in: Emotional Problems of Early Childhood, G. Caplan, ed., Basic Books, Inc., New York, 1955.

17. Goldfarb, W. Emotional and Intellectual Consequences of Psychologic Deprivation in Infancy: A Revaluation, in: Psychopathology of Childhood, Hoch, P. and Zubin, J., ed., Grune & Stratton, New York, 1955.

18. Heuyer, G., et al. A Case of Psychosis of Affective Etiology in a Young Child, in: Emotional Problems of Early Childhood, G. Caplan, ed., Basic Books, Inc., New York, 1955.

19. Hirschberg, J. and Bryant, K. Problems in the Differential Diagnosis of Childhood Schizophrenia, in: Proceedings of the Association for Research in Nervous and Mental Diseases, Williams & Wilkins Co., Baltimore, 1956.

20. Kanner, L. and Eisenberg, L. Notes on the Follow-Up Studies of Autistic Children, in: Psychopathology of Childhood, Hoch, P. and Zubin, J., ed., Grune & Stratton, New York, 1955.

21. Kanner, L. General Concept of Schizophrenia at Different Ages, in: Neurology and Psychiatry in Childhood, Vol. 34 (1954) of the Proceedings of the Association for Research in Nervous and Mental Diseases, Williams & Wilkins Co., Baltimore, 1956.

22. Kanner, L. and Lesser, L. Early Infantile Autism Ped. Clinics of No. Am., 5: 711, 1958.

23. Knowlton, P. and Burg, M. Treatment of a Borderline Psychotic Five-Year-Old Girl, in: Emotional Problems of Early Childhood, G. Caplan, ed., Basic Books, Inc., New York, 1955.

24. Mahler, M., et al. Clinical Studies in Benign and Malignant Cases of Childhood Psychosis (Schizophrenia-Like), Am. J. Orthopsych., 19: 295, 1949.

25. Mahler, M. On Childhood Psychosis and Schizophrenia: Autistic and Symbiotic Infantile Psychoses, Psychoanalytic Study of the Child, Vol. VII: 286, 1952.

26. Morrow, T. and Loomis, E. Symbiotic Aspects of a Seven-Year-Old Psychotic, in: Emotional Problems of Childhood, G. Caplan, ed., Basic Books, Inc., New York, 1955.

27. Onesti, S., ed. Etiologic Factors in Mental Retardation, Report of the Twenty-Third Ross Pediatric Research Conference, Ross Laboratories, Columbus, Ohio, 1957.

28. Pavenstedt, E. History of a Child with an Atypical Development, and Some Vicissitudes of His Treatment, in: Emotional Problems of Early Childhood, G. Caplan, ed., Basic Books, Inc., New York, 1955.

29. Potter, H. Schizophrenia in Children, Am. J. Psychiatry, 12: 1253, 1933.

30. Putnum, M. Some Observations on Psychosis in Early Childhood, in: Emotional Problems of Early Childhood, G. Caplan, ed., Basic Books, Inc., New York, 1955.

31. Rank, B. Intensive Study and Treatment of Preschool Children Who Show Marked Personality Deviations, or "Atypical Development," and Their Parents, in: Emotional Problems of Early Childhood, G. Caplan, ed., Basic Books, Inc., New York, 1955.

32. Sarason, S. Psychological Problems in Mental Deficiency, Harper and Brothers, New York, 1949.

33. Silver, A. Behavioral Syndrome Associated with Brain Damage in Children, Ped. Clinics of No. Am., 5: 687, 1958.

34. Slobody, L., et al. The Management of Mental Retardation, Ped. Clinics of No. Am., 5: 667, 1958.

35. Strauss, A. and Lehtinen, L. Psychopathology and Education of the Brain-Injured Child, Grune & Stratton, New York, 1947.

36. Waal, N. A Special Technique of Psychotherapy with an Autistic Child, in: Emotional Problems of Early Childhood, G. Caplan, ed., Basic Books, Inc., New York, 1955.

37. Weil, A. Some Evidences of Deviational Development in Infancy and Childhood, in: The Psychoanalytic Study of the Child, Vol. XI: 292, 1956.

38. Woodward, K. and Sieger, M. Psychiatric Study of Mentally Retarded Children of Pre-School Age: Preliminary Report, Pediatrics, 19: 1, 1957.

39. Woodward, K., et al. Psychiatric Study of Mentally Retarded Children of Pre-School Age: Report on First and Second Years of Three Year Project, Am. J. of Orthopsychiatry, 28: 2, 1958.